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# Monitoring Fast Facts

## Did you know...

- ➡ Most water monitoring in the U.S. is conducted by states, territories, and interstate commissions, not by federal agencies.
  - ➡ Under the Clean Water Act, EPA provides states with guidance and grants that help them establish and maintain their monitoring programs.
  - ➡ Main objectives of water monitoring are to: characterize conditions and trends; identify water quality problems; assess progress in meeting clean water goals; and respond to emergencies.
  - ➡ Scientists monitor water quality in many ways. They test levels of *chemical* constituents in water, fish tissue, and sediment; measure *physical* conditions such as habitat, temperature, and flow; and take *biological* measurements of the abundance and variety of plant and animal life.
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# Monitoring Fast Facts

## About Water Quality Reporting

- ➡ To determine if waters are impaired, states compare monitoring data to their *water quality standards*.  
(State-adopted and EPA- approved ambient standards for water bodies prescribe the use of the water body and establish the water quality criteria that must be met to protect these uses).
  - ➡ Under Section 305(b) the Clean Water Act, states report to EPA every two years on the findings of their monitoring programs, and EPA summarizes these findings in a National Water Quality Inventory report.
  - ➡ According to the latest reports, only about 20% of U.S. stream miles and about 40% of estuaries and lake waters are monitored/assessed by the states.  
*Source: Draft 2000 National Water Quality Inventory*
  - ➡ Under Section 303(d) of the Clean Water Act, states identify impaired waters needing Total Maximum Daily Loads (determinations of the maximum amount of a pollutant an impaired water can receive and still meet water quality standards).
  - ➡ EPA has issued new guidance to states to develop an integrated report in 2002 and beyond that meets the needs of both Sections 305(b) and 303(d).
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## Monitoring Fast Facts

### Volunteers Are Helping Out

- ➡ About half a million volunteers in over 800 organizations nationwide are regularly monitoring the quality of their local waters.
  - ➡ Trained volunteers provide quality data that are used to screen for problems, establish baseline conditions, characterize watersheds, and build environmental awareness.
  - ➡ Volunteers also restore degraded habitat, clean up debris, and work at the community level to protect our water resources.
  - ➡ During the 2001 International Coastal Cleanup, nearly 143,000 U.S. volunteers collected 3.6 million pounds of debris from the nation's beaches.
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## Monitoring Fast Facts

### RIVERS AND STREAMS

- ➡ About 700,000 river and stream miles – less than 20% of the nation's 3.7 million stream miles – are monitored/assessed.
- ➡ Nearly 40% of monitored miles are impaired and don't fully support all of their uses, such as swimming and fishing.
- ➡ The two leading pollution problems in impaired miles are excess levels of bacteria and siltation.
- ➡ Top sources of impairment include runoff from agricultural areas and hydrologic modification (e.g., flow regulation, channelization, and dredging).

*Source: Draft 2000 National Water Quality Inventory*

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## Monitoring Fast Facts

### LAKES

- ➡ About 17.3 million acres – 43% of the nation's 40.6 million lake acres – are monitored/assessed.
- ➡ 45% of monitored acres are impaired and don't fully support all their uses, such as swimming and fishing.
- ➡ The two leading problems in impaired acres are excess levels of nutrients and metals (primarily mercury).
- ➡ Top sources of impairment are runoff from agricultural areas and hydrologic modifications such as flow regulation, dredging and dam construction.

*Source: Draft 2000 National Water Quality Inventory*

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## Monitoring Fast Facts

### ESTUARIES

- About 31,000 square miles – 36% of the nation's 87,000 square miles of estuaries – are monitored/assessed.
- About 50% of monitored square miles are impaired and don't fully support all their uses, such as swimming and fishing.
- Top pollution problems in impaired square miles include excess levels of metals (primarily mercury), pesticides, and oxygen depletion from organic wastes.
- Top sources of impairment are sewage treatment plant discharges and runoff from urban areas and storm sewers.

*Source: Draft 2000 National Water Quality Inventory*

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